

Remarks/Arguments

The Office Action mailed April 16, 20078 has been reviewed and carefully considered.

Claims 8-11 and 13-15 have been canceled without prejudice. New Claims 16-21 have been added. No new matter has been added by these new claims. Claims 16-21 are now pending in this application.

Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

Claims 8-9 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 85,888 issued to H. Ball. Ball teaches a tamping plug comprising a plurality of wedges which are packed in a bore (see Col. 1, line 13), after a charge and a filler (sand) have been placed therein. Thus, and contrary to the Examiner's assertion, Ball does not teach or suggest the use of a tubular body. Furthermore, Ball does not teach, or remotely suggest a movable inner cap located within the tubular body of the cartridge.

The importance of a cartridge and cap of the present invention, within the context of Ball, lies in the controlled manner in which a force, created by the combusting propellant inside the enclosures (22), is brought to bear, via the interaction of the movable inner cap (14) and the filler (34) , on the large face (70) of the wedge component (48).

This controlled force has a wedging action on the wedge component (stemming device). In Ball, the force generated by the combusting charge, transmitted through the

sand filler, is released in an uncontrolled manner on the wedges which are caused to press forcibly against the sides of the bore, thereby acting to split or separate the surrounding rock (Col. 2, lines 29-48). This is a result that is not wanted or desired by the present invention.

Furthermore, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Applicant's new independent claim 16 recites, *inter alia*, the tubular body and the first and second caps, which are neither disclosed nor suggested by the teachings of Ball. Therefore, Ball clearly fails to anticipate or render obvious the present invention as set forth in independent claim 16.

Claims 8-11 stand rejected under 35 U.S.C. §102(b) as being anticipated by WO 00/60301 by Gavrilovic. Although these claims have been canceled, applicant comments on the reference in view of the newly submitted independent claim 16.

Gavrilovic teaches a rock breaking cartridge which has a tubular body (10F) defining an enclosure which is divided into a first compartment (12) for holding a stemming material (14) and a second compartment (16) for holding an energetic material (18). The first and second compartments are divided by an Internal dividing wall (22) which can be either a plug (Figure 14) or a cone (Figure 15). However, whatever the nature of the dividing wall, it is a fixed unmovable structure.

It is an object of the present invention to provide a rock breaking cartridge which includes an integral internal stemming device (30, 30a) which does away with the

necessity for providing a separate stemming device or filler to be placed exteriorly of the cartridge (see page 9, lines 22-24, page 10, lines 1-2), with the effectiveness of the stemming device enhanced by the action of the propellant (i.e., essentially a self-stemming action).

It is evident from the teachings of Gavrilovic that the force required to deform a part of the cartridge in a radial sense, to contact with a whole wall, and thus to self-stem, arises wholly from a source outside the cartridge. Consequently, the cartridge as taught by Gavrilovic cannot be described as self-stemming. The pressure to deform the cartridge, either about the first compartment (Figure 11), or about a wedging cap (86) (Figures 14, 15), is applied exteriorly to the cartridge by a compressing or tamping force exerted for example by a stemming bar (38).

Notwithstanding the foregoing, Gavrilovic clearly fails to disclose or suggest a movable inner cap which is driven into the filler (or stemming material) by the pressure created by propellant gas evolution, and which causes the filler to flow towards and against a stemming device to increase the wedging action of the stemming device (See page 7, lines 15-21). In new independent claim 16, applicant claims, *inter alia*, "...a first cap and an outer second cap located inside the tubular body and spaced from each other..." and/or "...an enclosure defined by the first and second caps...". These elements of applicant's rock breaking cartridge are neither disclosed, nor suggested by the teachings of Gavrilovic.

The patent to Ashurst has been cited for showing the grooves in the wedge components. In view of new independent claim 16 and the above distinctions between Gavrilovic and the same, the combination of the teachings of Ashurst with those of

Gavrilovic clearly fail to render applicant's claimed invention obvious. Reconsideration and withdrawal of the rejection, and early allowance on the merits is respectfully requested.

Claims 13-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over WO 00/60301 by Gavrilovic in view of U.S. Patent No. 2,812,712 issued to Ashurst.

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over WO 00/60301 by Gavrilovic in view of U.S. Patent No. 1,192,958 issued to Tucker.

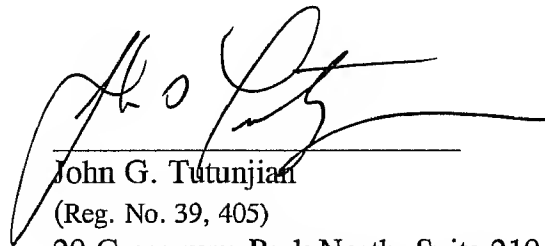
Claims 13-15 have been canceled by this amendment. Furthermore, applicant's new independent claim 16 has been clearly distinguished from the teachings of Gavrilovic, taken singly or in any combination with the teachings of Ashurst or Tucker.

In view of the foregoing, Applicant respectfully requests that the rejections of the claims set forth in the Office Action of April 16, 2008 be withdrawn, that pending claims 16-21 be allowed, and that the case proceed to early issuance of Letters Patent in due course.

It is believed that no additional fees or charges are currently due. However, in the event that any additional fees or charges are required at this time in connection with the application, they may be charged to applicant's representatives Deposit Account No. 50-1433

Respectfully submitted,

NXCO INTERNATIONAL LIMITED

A handwritten signature in black ink, appearing to read "John G. Tutunjian", is written over a horizontal line.

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